

## GLOSSARY OF TERMS

AGL	Above Ground Level
ASCII	American Standard for Computer Information Interchange
ASK	Amplitude Shift Keying
CCW	Counter Clockwise
CR	Carriage return. ASCII 13 decimal. Usually shown as <CR>.
CW	Clockwise
DAV	Data Above Voice
dB	Decibel
dBi	Decibel relative to Isotropic Antenna
dBm	Decibel relative to 1 milliwatt
DMSK	Dual Minimal Shift Keying
DUV	Data Under Voice
FCC	Federal Communications Commission
FDMFM	Frequency Modulation with Frequency Division Multiplexing
FDMSSB	Single-Side-Band Frequency Modulation with Frequency Division Multiplexing
FSK	Frequency Shift Keying
Info	Informational. These fields are not required under any circumstances. Because of variations in spelling context or abbreviation, these fields cannot easily be used for computer analysis.
LF	Line Feed. ASCII 10 decimal. Usually shown as <LF>.

Mbps	Megabits per second
MHz	Megahertz
MMDDYY	Month, Day, and Year, e.g., 030190 is March 1, 990
MSK	Minimal Shift Keying

## GLOSSARY OF TERMS (Cont'd)

Opt	Owner Code for a company has not been assigned, the name, address, etc. must be supplied. The Optional information will be used to manually determine the local temporary number. If the code is supplied, the optional information may be ignored.
PCN	Prior Coordination Notice. Can be a Terrestrial Microwave or an Earth Station PCN.
PSK	Phase Shift Keying
nPSK	n-Level Phase Shift Keying. 'n' can be 4, 8, or 16.
nQAM	n-Level Quadrature Amplitude Modulation. 'n' can be 4, 8, 16, 32, or 64.
QPRS <sub>n</sub>	Quadrature Partial Response System, Level n. 'n' can be 3, 7, 9, 25, or 49.
QPSK	Quadrature Phase Shift Keying. Same as 4-level Phase Shift Keying.
Req	These fields are required under all circumstances. For Opt fields, the circumstances which make them Req fields are obvious or listed
VIDFM	Video with normal Frequency Modulation
VIDSSB	Video with Single-Side-Band Frequency Modulation

### Attachment 3 Transmission Loading Type

<b>Transmission Type</b>	<b>Transmission Loading Type</b>
<b>Analog systems</b>	ANALOG FDMFM; FDMSSB; DUV DAV
<b>Digital systems</b>	DIGITAL FSK ASK MSK DMSK PSK QPSK 8PSK 16PSK 4QAM 8QAM 16QAM 32QAM 64QAM 256QAM QPRS3 QPRS7 QPRS9 QPRS25 QPRS49
<b>Video systems</b>	VIDEO VIDFM VIDSSB

**Earth Station  
Prior Coordination Notice (PCN) Format  
Issue 1 February, 1992**

This document contains the standard format for the electronic transfer of Earth Station Prior Coordination Notices (PCNs).

**1. General Information.**

A. In the field description tables, all fields marked 'Req' are required and must be included. Fields marked 'Opt' are optional but may be required under certain conditions. If the conditions are not obvious, they are listed. Fields marked 'Info' are informational and, if included, are used for verification.

B. For increased readability, use both upper and lower case letters for description and narratives.

C. The Electronic Earth Station PCN consists of one PCN record followed by one Site record and may be followed by one or more Case records. If there are no precipitation scatter cases, there will be no Case records. If a PCN is informational, there might not be any Site or Case records.

D. The fields are separated with a tilde (~) and do not require justification or padding. There must be one delimiter (~) per field in each record whether the field is blank or not. Only printable, ASCII characters can be used for data. Each PCN, Site and Case record is followed by a <CR> and a <LF>.

E. Use the two-character United States Postal Service standard abbreviation for the State Code.

F. There is sufficient room in all numeric fields for a minus sign (-) and, if needed, a decimal point, (.). If no sign is entered, the value is positive. If no decimal point is entered, the number is a whole number.

G. PCNs, Sites and Links marked informational may be responded to at the option of the recipient of the PCN.

## **2.0. PCN Record Description**

The PCN record contains data describing the entire PCN, including who is doing the Coordinating and for which Owner/Licensee the coordination is being done. The relationship of this PCN to the previous PCN is included for tracking purposes.

As plans change, up or down links may be added or removed from the PCN, or the data itself may be changed. Five fields in the PCN record reduce confusion by linking this PCN to a previous PCN. The fields and their numbers are as follows: Internal PCN ID(3), PCN Date(4), PCN Type(24), Previous PCN ID(25) and Previous PCN Date(26).

For example, if an Owner/Licensee wants to add an up link to a PCN already in coordination, he/she would send a second PCN showing both links. In this case, field 24 of the second PCN would contain an 'S' to indicate this PCN supercedes another, and fields 25 and 26 would contain the PCN ID and PCN Date, respectively, of the superceded PCN.

These linking fields are used with fields at the frequency level. See Sections 3.3.1 and 3.3.2 for more information on these fields.

Table 1 gives a detailed description of the PCN record.

**Table 1. PCN Record Fields**

<b>Field</b>	<b>Max Length</b>	<b>Description of Data Field</b>	<b>Opt/Req</b>
1	2	Type of Coordination	Req
		Refer to Attachment 1	
2	15	Coordinating company code	Req
		- Assigned by FCC or Canada	
		- 0000 if no code assigned	
3	1	Coordinating company code suffix	Opt
		-Use for alternate mailing address	
4	11	PCN Internal ID	Opt
		- Req for expediting trans-border coordination	
5	6	Date this PCN was issued	Req
		- MMDDYY	
6	30	Frequency Coordinator name	Req
7	30	Frequency Coordinator title	Info
8	30	Frequency Coordinator street address	Req
9	22	Frequency Coordinator city	Req
10	2	Frequency Coordinator state	Req
11	10	Frequency Coordinator ZIP code	Req
12	10	Frequency Coordinator telephone	Req
13	15	Owner/Licensee company code	Req
		- Assigned by Frequency Coordinator	
		- 0000 if no code assigned	
14	1	Owner/Licensee code suffix	Opt
		- Use for alternate address	
15	40	Owner/Licensee name	Req
16	30	Owner/Licensee street address	Req
17	22	Owner/Licensee city	Req
18	2	Owner/Licensee state	Req
19	10	Owner/Licensee ZIP code	Req

**Table 1. PCN Record Fields (Cont'd)**

<b>Field</b>	<b>Max Length</b>	<b>Description of Data Field</b>	<b>Opt/Req</b>
20	60	PCN site , hop or route description	Req
21	180	PCN description and purpose	Opt
22	6	Start of operation date	Opt
		- MMDDYY	
		- Req if Temporary Earth Station	
23	6	End of operation date	Opt
		- MMDDYY	
		- Req if Temporary Earth Station	
24	10	On-site Phone Number	Opt
		- Req if Temporary Earth Station	
25	1	PCN type code	Req
		- S:Superceding PCN	
		- I:Informational PCN only	
		- N:New PCN. No previous PCN.	
		- R:Renewal PCN. No changes.	
		- C:Cancel.	
26	11	Previous PCN Internal ID	Opt
		- Req if field 25 is R, C, or S	
27	6	Date of previous PCN	Opt
		- MMDDYY	
		- Req if field 25 is R, C, or S	
28	1	Owner/Licensee request	Req
		- C: Change existing site	
		- D: Turn down existing site	
		- R: Remove PCN from Coordination	
		- U: Turn up new site	



**Table 1. PCN Record Fields (Cont'd)**

<b>Field</b>	<b>Max Length</b>	<b>Description of Data Field</b>	<b>Opt/Req</b>
29	1	Coordination Site code	Req
		- N: No Change from previous PCN	
		- A: Site added with this PCN	
		- C: Site Changed with this PCN	
30	6	Requested reply date	Opt
		- MMDDYY	
		- Req if field 25 is N, R, or S	
31	2	Number of Case records or pairs of path records	Req
		- Could be 0 if field 25 is I	

## **Attachment 1**

### **Types of Coordination**

**The following abbreviations are to be used in Field 1 of the PCN Record Description:**

- 1. CC - Common Carrier (terrestrial)**
- 2. OF - Operational Fixed (pvt)**
- 3. TV - Television**
- 4. ES - Earth Station**
- 5. CE - Canada Earth Station**
- 6. CT - Canada Terrestrial**
- 7. ME - Mexico Earth Station**
- 8. MT - Mexico Terrestrial**

### **3. Site Record Description**

Site records contain all the technical information necessary to perform interference calculations including location, antenna, equipment, and frequency information.

There will always be only one Site record for an Earth Station PCN. Both the up link and down link frequencies will be included on the record.

#### **3.1. Links to Previous Frequency**

As PCNs are superseded, frequencies being coordinated can be added, deleted, or their data changed. The Up Link Status field shows the status of all fields relating to the transmitter as of the PCN date. The Down Link Status field shows the status of all fields associated with the receiver as of the PCN date.

A link being prior-coordinated is considered 'added' the first time it shows up on a PCN. A link is considered 'changed' on the first superseding PCN showing the changes. Otherwise, a link being prior-coordinated is considered 'not changed.'

For completeness and verification, the PCN should contain all links associated with the Earth Station that are controlled by the Owner/Licensee and coordinated through the Frequency Coordinator. The Up and/or Down Link Status fields will show the status of these links but these frequencies will not be considered under prior-coordination with this PCN.

All frequencies listed as Coordinated, License Applied For, or Construction Permit Granted will be renewed if this is a Renewal PCN.

Table 2 gives a detailed description of the Path record.

**Table 2. Site Record Fields**

<b>Field</b>	<b>Max Length</b>	<b>Description of Data Field</b>	<b>Opt/Req</b>
1	8	Call Sign	Opt
		- Fictitious call signs start with '?'	
		- Req if transmitter	
2	11	Site name	Req
3	2	Site state code	Req
4	1	Site change code	Req
		N: No change from previous	
		C: Changed from previous PCN	
5	3	Site latitude, degrees	Req
		Use (-) to indicate South	
6	2	Site latitude, minutes	Req
7	4	Site latitude, seconds	Req
		- tenths of a second	
8	4	Site longitude, degrees	Req
		Use (-) to indicate East	
9	2	Site longitude, minutes	Req
10	4	Site longitude, seconds	Req
		- tenths of a second	
11	1	Rain zone	Req
12	1	Radio climate	Req
13	5	Ground elevation	Req
		- AMSL, feet	
14	5	Satellite longitude - Minimum	Req
		- degrees (tenths of a degree)	
15	5	Satellite longitude - Maximum	Req
		- degrees (tenths of a degree)	
16	5	Satellite azimuth - Minimum	Req
		- degrees (tenths of a degree)	
		- from North	

Table 2. Site Record Fields

Field	Max Length	Description of Data Field	Opt/Req
17	5	Satellite azimuth - Maximum	Req
		- degrees (tenths of a degree)	
		- from North	
18	4	Antenna elevation - East	Req
		- degrees (tenths of a degree)	
19	4	Antenna elevation - West	Req
		- degrees (tenths of a degree)	
20	1	Up link status code	Req
		- Prior-coordinate w/ this PCN:	
		A: Added w/ this PCN	
		D: Data changed w/ this PCN	
		- N: No changed from previous PCN	
		- Do not prior-coordinate w/ this PCN:	
		U: Under prior-coordination	
		F: Finished prior-coordination	
		L: Licensed applied for	
		C: Construction permit granted	
		O: Operational permanent	
		T: Operational temporary	
		R: Removed from operation	
		?: Status unknown, frequency used	
21	5	Maximum transmit power	Opt
		- dBW/4KHz (tenths of a dBW)	
		- Req if transmitter	
22	5	Maximum EIRP	Opt
		- dBW/4KHz (tenths of a dBW)	
		- Req if transmitter	
23	2	Transmit band	Opt
		- Req if transmitter	
24	60	Transmit Frequencies	Opt
		- Req if Temporary Earth Station transmitter and entire band is not used.	
25	6	Transmit antenna FCC code	Opt
		- Assigned by FCC	
		- Use 0000 if unknown	
		- Req if transmitter	

Table 2. Site Record Fields

Field	Max Length	Description of Data Field	Opt/Req
26	10	Transmit antenna manufacturer	Opt
		- Req if field 20 is 0000	
27	20	Transmit antenna model number	Opt
		- Req if field 20 is 0000	
28	4	Transmit antenna gain	Opt
		- dBi in main beam (tenths of a dBi)	
		- Req if field 20 is 0000	
29	4	Transmit antenna centerline height	Opt
		- AGL, feet	
		- Req if transmitter	
30	4	Transmit antenna pad/line loss	Opt
		- dB (tenths of a dB)	
		- Req if transmitter	
31	4	Transmit antenna half beam	Opt
		- 15dB half beam	
		- deg (hundreths of a degree)	
		- Req if transmitter	
32	11	Transmitter modulation #1	Opt
		- Req if transmitter	
		See Attachment 1	
33	11	Transmitter modulation #2	Opt
34	11	Transmitter modulation #3	Opt
35	10	Transmitter emission designator #1	Opt
		- Req if transmitter	
36	10	Transmitter emission designator #2	Opt
37	10	Transmitter emission designator #3	Opt

Table 2. Site Record Fields

Field	Max Length	Description of Data Field	Req
38	4	Maximum great circle distance	Req
		- km	
39	4	Maximum rain scatter distance	Req
		- km	
40	1	Down link status code	Req
		- Prior-coordinate w/ this PCN:	
		A: Added w/ this PCN	
		D: Data changed w/ this PCN	
		N: Not changed w/ this PCN	
		- Do not prior-coordinate w/ this PCN:	
		U: Under prior-coordination	
		F: Finished prior-coordination	
		L: Licensed applied for	
		C: Construction permit granted	
		O: Operational permanent	
		T: Operational temporary	
		R: Removed from operation	
		?: Status unknown, frequency used	
41	2	Receive Band	Opt
		Req if receiver	
42	60	Receive frequencies	Opt
		- Req if Temporary Earth Station receiver and entire band is not used.	
43	6	Receiver antenna FCC Code	Opt
		- Req if receiver	
		- Use 0000 if unknown	
44	10	Receiver antenna manufacturer name	Opt
		- Req if field 38 is 0000	
45	20	Receiver antenna model number	Opt
		- Req if field 38 is 0000	
46	4	Receiver antenna gain	Opt
		- dBi in main beam (tenths of a dBi)	
		- Req if field 38 is 0000	
47	4	Receiver antenna centerline height	
		- AGL, feet	
		- Req if a receiver	

**Table 2. Site Record Fields**

Field	Max Length	Description of Data Field	Opt/Req
48	4	Receiver antenna pad/line loss	Opt
		- dB (tenths of a dB)	
		- Req if a receiver	
49	4	Receiver antenna half beam	Opt
		- 15 dB	
		- degrees (hundreths of a degree)	
		- Req if a receiver	
50	11	Satellite transmitter modulation #1	Opt
		- Req if a receiver	
51	11	Satellite transmitter modulation #2	Opt
52	11	Satellite transmitter modulation #3	Opt
53	10	Satellite transmitter emission	Opt
		designator #1	
		- Req if a receiver	
54	10	Satellite transmitter emission	Opt
		designator #2	
55	10	Satellite transmitter emission	Opt
		designator #3	
56	4	Maximum great circle distance	Opt
		- km	
		- req if a receiver	
57	4	Maximum rain scatter distance	Opt
		- km	
		- req if receiver	
58	4	Maximum interference, long term	Opt
		- dBW, omit negative sign	
		- req if a receiver	
59	4	Maximum interference, short term	Opt
		- dBW, omit negative sign	
		- req if receiver	
60	5	Local Horizon Elevation Angle - 0 deg	Req
		- degrees (tenths of a degree)	
		- Enter sign and decimal point	



**Table 2. Site Record Fields**

Field	Max Length	Description of Data Field	Opt/Req
61	5	Local Horizon Elevation Angles	Req
		- same as field 60	
	thru	- every 5 degrees from 5 through 355	
131			
132	5	Transmitter horizon gain - 0 deg	Opt
		- dBi (tenths of a dB)	
		- Enter sign and decimal point	
		- Required if transmitter	
133	5	Transmitter Horizon Gains	Opt
		- same as field 132	
	thru	- every 5 degrees from 5 through 355	
203			
204	5	Receiver horizon gain - 0 deg	Opt
		- dBi (tenths of a dB)	
		- Required if receiver	
205	5	Receiver horizon gains	Opt
		- Same as field 204	
	thru	- every 5 degrees from 5 through 355	
275			

#### **4. Case Record Description**

Case records contain all the information pertaining to Precipitation Scatter Cases into and out of Terrestrial Microwave Stations.

For each Precipitation Scatter Case, there will be one Case record. There can be up to 99 Case records in a single Earth Station PCN.

Each time a PCN is superceded, all Case records should be included.

Table 3 gives a detailed description of the Case record.

Table 3. Case Record Fields

Field	Max Length	Description of Data Field	Opt/Req
1	1	Type of Case	Req
		- R for case into Earth Station	
		- T for case from Earth Station	
2	11	Terrestrial transmitter name	Req
3	2	Terrestrial transmitter state code	Req
		- USPS code	
4	8	Terrestrial transmitter call sign	Req
		- Fictitious call signs start with '?'	
5	12	Terrestrial transmitter owner code	Req
		- FCC assigned	
6	11	Terrestrial receiver name	Req
7	2	Terrestrial receiver state code	Req
		- USPS code	
8	8	Terrestrial site call sign	Req
		- Fictitious call signs start with '?'	
9	12	Terrestrial receiver owner code	Req
		- FCC assigned	
10	4	Terrestrial station half beam	Req
		- 15 dB	
		- degrees with decimal point	
		- Use terrestrial transmitter if field	
		1 is 'R'	
		- Use terrestrial receiver if field 1	
		is 'T'	
11	4	Terrestrial centerline height	Req
		- feet	
		- Use terrestrial transmitter if field 1	
		is 'R'	
		- Use terrestrial receiver if field 1	
		is 'T'	
12	5	Orbital longitude worst-case	Req
		- Enter decimal point	
13	5	Margin from Objective	Req
		- Enter sign and decimal point	

## 6. Example of an Electronic Earth Station Prior Coordination Notice

The following is an example of the Electronic Earth Station Prior Coordination Notice. Only the data and <CR> <LF> would be entered. The record number and types are for illustration purposes only.

### Record 1 (PCN type):

Sat~000015~~8829701001A~061389~Joe Timinsky~Project Manager~251 West Renner  
Road~Richardson~TX~75080~2146801000~297010~~Equatorial Communication Services~300 Ferguson  
Drive~Mountain View~CA~94043~Lake Geneva #380-4297 Transmit Only~This is a temporary Earth  
Station and will be used between 11/1/89 and 12/31/89  
only.~110189~123189~4155551212~N~~~U~A~071889~2~<CR> <LF>

### Record 2 (Site Type):

?KEA64~Lake  
Geneva~WI~C~42~36~29.5~88~26~52.2~2~A~875~91~101~183.8~198.2~40.7~39.2~A~  
28~8.5~6~6012.6,6017.6,6021.0,6052.6,6078.6~0000~Equatorial~C-201-3013-  
01~36.5~12~0~3~DIGITAL~~~4M92G1D~~~62.1~62.1~.4~.3~.4~.6~1.1~1.  
2~1.4~1.6~1.2~1.4~1.3~1.5~1.3~1.5~1.2~1.~1.3~1.5~1.6~1.4~1.2~1.1~1.5~1.6~1.9~1.8~1.7~1.6~2.~2  
.1~1.4~1.4~1.5~1.2~1.2~1.4~1.6~1.8~2.1~2.1~1.8~1.8~1.8~1.6~1.6~1.2~1.~.9~.7~.5~.3~.2~.2~.4~.5~  
.5~.4~.4~.4~.5~.6~.6~.6~.6~.5~.5~.6~.6~.6~.5~.4~.3~-11.4~-11.4~-11.3~-11.2~-11.2~-11.2~-11.3~-  
11.4~-11.6~-11.8~-12.1~-12.4~-12.7~-13.~-13.3~-13.7~-14.~-14.4~-14.8~-15.1~-15.5~-15.9~-19.~-  
16.~-11.5~-11.5~-11.5~-11.5~-11.5~-11.5~-11.5~-11.5~-11.5~-14.5~-14.1~-13.9~-13.7~-13.5~-  
13.3~-13.3~-  
13.5~-13.8~-11.5~-11.5~-11.5~-11.5~-11.5~-11.5~-11.5~-11.5~-11.5~-16.~-16.~-16.~-15.7~-  
15.3~-15.~-14.6~-14.2~-13.9~-13.6~-13.2~-12.9~-12.6~-12.4~-12.1~-11.9~-11.7~-11.6~-  
11.5~  
~~~~~<CR> <LF>

### Record 3 (Case Type):

R~Chicago~IL~KSP74~~Aurora~IL~KIK64~~3.25~145~143.~-4.21<CR> <LF>

### Record 4 (Case Type):

R~Madison~WI~KSP74~~WiscDells~WI~KIK64~~3.25~145~143.~-4.21<CR> <LF>

## **Abbreviations and Acronyms**

- AGL** Above Ground Level
- ASCII** American Standard for Computer Information Interchange
- ASK** Amplitude Shift Keying
- DAV** Data Above Voice
- dB** Decibel
- dB<sub>i</sub>** Decibel relative to Isotropic Antenna
- dB<sub>m</sub>** Decibel relative to 1 milliwatt
- DMSK** Dual Minimal Shift Keying
- DUV** Data Under Voice
- FCC** Federal Communications Commission
- FDMFM** Frequency Modulation with Frequency Division Multiplexing
- FDMSSB** Single-Side-Band Frequency Modulation with Frequency Division Multiplexing
- FSK** Frequency Shift Keying
- Info** Informational. These fields are not required under any circumstances. Because of variations in spelling, context or abbreviation, these fields cannot easily be used for computer analysis.
- LF** Line Feed. ASCII 10 decimal. Usually shown as <LF>.

**MBps** Megabits per second

**MHz** Megahertz

**MMDDYY** Month, Day, and Year E.g., 030190 is March 1, 1990.

**MSK** Minimal Shift Keying

**Opt** Optional. These fields are optional but may be required in some cases. For example, if an FCC Owner Code for a company has not been assigned, the name, address, etc. must be supplied. The Optional information will be used to manually determine the local temporary number. If the code is supplied, the optional information will be ignored.

**PCN** Prior Coordination Notice. Can be Terrestrial Microwave or Earth Station/Satellite.

**PSK** Phase Shift Keying

**nPSK** n-Level Phase Shift Keying. 'n' can be 4, 8, or 16.

**nQAM** n-Level Quadrature Amplitude Modulation. 'n' can be 4, 8, 16, 32, or 64.

**QPRSn** Quadrature Partial Response System, Level n. 'n' can be 3, 7, 9, 25, or 49

**QPSK** Quadrature Phase Shift Keying. Same as four-level Phase Shift Keying.

**Req** Required. These fields are required under all circumstances. For Opt fields, the circumstances which make them Req fields are obvious or listed

**VIDFM** Video with normal Frequency Modulation

**VIDSSB** Video with Single-Side-Band Frequency Modulation

### **Attachment 1**

- Analog systems: ANALOG; FDMFM;  
FDMSSB; DUV; DAV
- Digital systems: DIGITAL; FSK; ASK;  
MSK; DMSK; PSK; QPSK; 8PSK; 16PSK;  
4QAM; 8QAM; 16QAM; 32QAM; 64QAM;  
;QPRS3; QPRS7; QPRS9; QPRS25; QPRS49
- Video systems: VIDEO; VIDFM; VIDSSB
- Hybrid



## RECOMMENDATION

**Subject Area:** Data Exchanges

**Title:** Standard for Interchange of Large Volume Microwave Path Data

### *Synopsis*

The attached recommendation defines a standard format for the use of coordinators wishing to exchange large volumes of microwave path data with other coordinators who have differently structured data bases.

**Adopted:** November 5, 1987

January 17, 1991

Revision 1.01

Section 5.4.3



STANDARD  
FOR  
INTERCHANGE OF LARGE VOLUME MICROWAVE PATH DATA

## 1. INTRODUCTION

This document defines a standard format for the use of organizations in North America wishing to exchange microwave path data in their database with others with differently structured databases. There are a large number of organizations maintaining such databases in North America that find this a useful or necessary operation. Each database has its' own unique structure and this causes problems with interchange.

At present, anyone wishing to import data from another organizations' database must write a computer procedure to interpret the data and spend a large amount of time translating the various antenna, equipment, operator and loading codes from the supplier's code to the internal code used by the receiving database. One procedure must be written for each supplier of data.

## 2. WHAT THIS STANDARD IS NOT

This standard is not a format for the exchange of prior coordination information dealing with small changes to a site, or low volume information that can be handled at the individual query level. The impetus for this standard comes from the need to transfer large sections of one user's database to another user.

It is also not intended to be a standard or specification for the structure of any user's database, but to be convertible with minimum effort to and from most structures currently used. It is thus purely a structure for communicating the database information of one organization to the database of another.